CLAIMS

What is claimed is:

1. A peptide comprising the amino acid sequence of SEQ ID NO: 2.

2. The peptide of claim 1, wherein said peptide comprises the amino acid sequence of SEQ ID NO: 1.

3. The peptide of claim 1, wherein said peptide binds an islet-brain protein (IB) polypeptide.

4. The peptide of claim 3, wherein said IB polypeptide is IB1 or IB2.

5. The peptide of claim 1, wherein said peptide inhibits MKK7 kinase binding to an SH3 domain polypeptide.

6. The peptide of claim 1, wherein said peptide comprises D- enantiomeric amino acids.

7. The peptide of claim 1, wherein said peptide is less than 50 amino acids in length.

8. A chimeric peptide comprising a first domain and a second domain linked by a covalent bond, wherein said first domain comprises the amino acid sequence of SEQ ID NO: 36 and the second domain comprises an SH3 binding peptide.

9. The peptide of claim 8, wherein said SH3 binding peptide is selected from the group consisting of SEQ ID NO: 1 – 34.

10. The peptide of claim 8, wherein said SH3 binding peptide binds an islet-brain protein (IB) polypeptide.

11. A peptide comprising the amino acid sequence selected from the group consisting of

SEQ ID NO: 7 – 17.

12. The peptide of claim 11, wherein said peptide binds an islet-brain protein (IB) polypeptide.

13. The peptide of claim 12, wherein said IB polypeptide is IB1 or IB2.

14. The peptide of claim 11, wherein said peptide inhibits MKK7 kinase binding to an SH3 domain polypeptide.

15. The peptide of claim 11, wherein said peptide comprises D- enantiomeric amino acids.

16. The peptide of claim 11, wherein said peptide is less than 50 amino acids in length.

17. A peptide less than 50 amino acids in length comprising

(a) an SXSVGX (SEQ ID NO: 5) motif and;

(b) a PPSPRP (SEQ ID NO: 6) motif,

wherein said peptide binds an SH3 domain polypeptide.

18. The peptide of claim 17, wherein said SH3 domain polypeptide is an islet-brain protein (IB) polypeptide.

19. The peptide of claim 17, further comprising the amino acid sequence of SEQ ID NO: 36.

20. A peptide comprising the amino acid sequence of SEQ ID NO: 3.

21. An isolated nucleic acid encoding the peptide of claim 1.

22. A vector comprising the nucleic acid of claim 21.

23. A cell comprising the vector of claim 21.

24. A composition comprising the peptide of claim 1 and a carrier.

25. A method of inhibiting apoptosis in a cell, comprising contacting said cell with the peptide of claim 1.

26. The method of claim 25, wherein said cell is a neuronal cell or a pancreatic cell.

27. The method of claim 25, wherein said cell is provided *in vitro, in vivo or ex vivo.*

28. A method of alleviating a symptom of an apoptosis-associated disorder in a subject, said method comprising administering to said subject the polypeptide of claim 1.

29. The method of claim 28, wherein said apoptosis-associated disorder is selected from the group consisting of a neurological disorder, a neurodegenerative disorder, and a pancreatic disorder.

30. A method of promoting neuronal cell growth or regeneration, comprising contacting said cell with the peptide of claim 1.